

EXHIBIT 3

Dr. Indrajeet Chaubey



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Publications

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Refereed Journal Articles (published or in print):

1. Mutlu, E., **I. Chaubey**, H. Hexmoor, and S.G. Bajwa. 2008. Comparison of artificial neural network models for hydrologic predictions at multiple gauging stations in an agricultural watershed. *Hydrological Processes (In Press)*.
2. Quansah, J.E., B.E. Engel, and **I. Chaubey**. 2008. Tillage practices usage in early warning prediction of atrazine pollution. *Transactions of the ASABE 51(4): (In Press)*.
3. Singh, N., S.G. Bajwa, and **I. Chaubey**. 2008. Removal of surface reflectance from above-water visible-near

<https://engineering.purdue.edu/~ichaubey/publications.html>



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- infrared spectroscopic measurements. *Applied Spectroscopy* 62(9): (In Press).
4. Pennington, J.H., M.S. Steele, K.A. Teague, B. Kurz, E. Gbur, J.H. Popp, H. German Rodriguez, **I. Chaubey**, M. Gitau, and M.A. Nelson. 2008. Breaking ground: a cooperative approach to data collection from an initially uncooperative population. *Journal of Soil and Water Conservation* 63(2): (In Press).
 5. Leh, M.D., **I. Chaubey**, J. Murdoch, J.V. Brahana, and B.E. Haggard. 2008. Delineating runoff processes and critical runoff areas in a pasture watershed of the Ozark Highlands. *Hydrological Processes* DOI:10.1002/hyp.7021.
 6. Migliaccio, K.W., and **I. Chaubey**. 2008. Influence of spatial distributions and stochastic parameters on SWAT model flow and sediment predictions. *Journal of Hydrologic Engineering* 13(4):258-269. DOI: 10.1061/(ASCE)1084-0699(2008)13:4(258).
 7. Migliaccio, K.W., B.E. Haggard, **I. Chaubey**, and M. Matlock. 2007. Linking watershed characteristics to water quality parameters in War Eagle Creek watershed. *Transactions of the ASABE* 50(6):2007-2016.
 8. Rodríguez, H.G., J.H. Popp, L.A. Rivera, **I. Chaubey**, and B. Schaffer. 2007. Implementation of Best Management Practices under cost risk to control phosphorus pollution in a crop based watershed in Arkansas. *Journal of Environmental Monitoring and Restoration* 3:195-207.
 9. Sriyastav, R.K., K.P. Sudheer, and **I. Chaubey**. 2007. A simplified approach to quantify predictive and parametric uncertainty in artificial neural network hydrologic models. *Water Resources Research* 43, W10407, doi:10.1029/2006RW005352.
 10. Migliaccio, K.W. and **I. Chaubey**. 2007. Multi-site and multi-variable calibration and validation of watershed models – Comment. *Hydrological Processes* 21:3226-3228. DOI:10.1002/hyp.6491.
 11. **Chaubey, I.** and M. Matlock. 2007. Teaching undergraduate students to manage aquatic ecosystems at the watershed level: an ecological engineering approach. *International Journal of Engineering Education* 23 (4):723-727.
 12. Sudheer, K.P., **I. Chaubey**, V. Garg, and K.W. Migliaccio. 2007. Impact of time scale of calibration objective function on the performance of watershed models. *Hydrological Processes* 21:3409-3419. DOI:10.1002/hyp.6555.
 13. **Chaubey, I.** D. Sahoo, B.E. Haggard, M.D. Matlock, and T.A. Costello. 2007. Nutrient retention, limitation, and sediment interactions in a pasture dominated stream. *Transactions of the ASAE* 50(1):35-44.
 14. Sen, S., B.E. Haggard, **I. Chaubey**, K.R. Brye, T.A. Costello, and M.D. Matlock. 2007. Sediment phosphorus release at Beaver Reservoir, northwest Arkansas, 2002-3. *Air, Soil, and Water Pollution* 179:67-77.
 15. Migliaccio, K.W., **I. Chaubey**, and B.E. Haggard. 2007. Evaluation of landscape and instream modeling to predict watershed nutrient yields. *Environmental Modeling and Software* 22(7): 987-999.
 16. Sudheer, K.P., **I. Chaubey**, and V. Garg. 2006. Lake water quality assessment from Landsat TM data using neural network: An approach to optimal band combination selection. *Journal of the American Water Resources Association* 42(6):1683-1695.
 17. **Chaubey, I.** and G.M. Ward. 2006. Hydrologic budget analysis of a small natural wetland in southeastern USA. *Journal of Environmental Informatics* 8(1):10-21.
 18. Shirmohammadi, A., **I. Chaubey**, R.D. Harmel, D.D. Bosch, R. Munoz-Carpena, C. Dharmasri, A. Sexton, M. Arabi, M.L. Wolfe, J. Frankenberger, C. Graff, and T.M. Sohrabi. 2006. Uncertainty in TMDL models. *Transactions of the ASABE* 49(4):1033-1049.
 19. Ekka, S.A., B.E. Haggard, M.D. Matlock, and **I. Chaubey**. 2006. Dissolved phosphorus concentrations and sediment interactions in effluent dominated Ozark streams. *Ecological Engineering* 26:375-391.
 20. DeLaune, P.B., B.E. Haggard, T.C. Daniel, **I. Chaubey**, and M.J. Cochran. 2006. The Eucha/Spavinaw Phosphorus Index: A court mandated index for litter management. *Journal of Soil and Water Conservation* 61

(2):96-105.

21. Merriman, K., M. Gitau, and I. Chaubey. 2006. A tool for estimating best management practices effectiveness in Arkansas. *Discovery* 7:57-65.
22. White, K.L., and I. Chaubey. 2005. Multi-site and multi-variable calibration of the SWAT model. *J. American Water Resources Association* 41(5):1077-1089.
23. Warner, K.A., J.C. Bonzongo, E.E. Roden, M.G. Ward, A. Green, I. Chaubey, W.B. Lyons, and D. A. Arrington. 2005. Effect of watershed parameters on mercury distribution in different environmental compartments in the Mobile Alabama River Basin, USA. *Science for the Total Environment* 347:187-207.
24. Chaubey, I., Cotter, A.S., T.A. Costello, and T. Soerens. 2005. Effect of DEM data resolution on SWAT output uncertainty. *Hydrological Processes* 19:621-628.
25. Panda, S., V. Garg, and I. Chaubey. 2004. Artificial neural networks application in lake water quality estimation using satellite imagery. *Journal of Environmental Informatics* 4(2):65-74.
26. Haggard, B.E., S.A. Ekka, M.D. Matlock, and I. Chaubey. 2004. Phosphate equilibrium between stream sediments and water: potential effects of chemical amendments. *Transactions of the ASAE* 47(4):1113-1118.
27. White, K.L., B.E. Haggard, and I. Chaubey. 2003. Water quality during base flow and surface runoff conditions at the Buffalo National river near St. Joe, Arkansas. *Transactions of the ASAE* 42(2) 407-417.
28. Haggard, B.E., P.A. Moore, Jr., I. Chaubey, and E.H. Stanley. 2003. Nitrogen and phosphorus concentrations and export from Ozark Plateau watersheds: possible effect of land use on reservoir nutrient loading. *Journal of Biosystems Engineering* 86(1): 75 - 85.
29. Garg, V., I. Chaubey, and B.E. Haggard. 2003. Quantification of model output uncertainty due to calibrating watershed characteristics. *Transactions of the ASAE* 46(5):1347-1353.
30. Cotter, A.S., I. Chaubey, T.A. Costello, T.S. Soerens, and M.A. Nelson. 2003. Water quality model output uncertainty as affected by spatial resolution of input data. *Journal of American Water Resources Association* 39 (4): 977-986.
31. Dillahunty, W.H., I. Chaubey, and M.D. Matlock. 2003. Watershed scale agricultural land use impact on instream physicochemical parameters. *Discovery* 4:21-25.
32. Matlock, M.M., I. Chaubey, B.E. Haggard, and K.L. White. 2002. Is the fairness principle fair? *Impact* 4(6): 17-21.
33. Dennis, S., I. Chaubey, and B.E. Haggard. 2002. Quantification of land use impact on stream water quality. *Discovery* 3: 35-39.
34. Benke, A.C., I. Chaubey, G.M. Ward and E.L. Dunn. 2000. Flood pulse dynamics of a river floodplain swamp in the southeastern USA coastal plain. *Ecology* 81(10):2730-2741.
35. Ward, G.M. and I. Chaubey. 2000. Diurnal variability of stage in a wetland pond in the Southeastern United States. *Verh. Internat. Verein. Limnol.* 27:1703-1706.
36. Chaubey, I., C.T. Haan, J.M. Salisbury and S. Grunwald. 1999. Quantifying model output uncertainty due to spatial variability of rainfall. *Journal of American Water Resources Association* 38(5):1113-1123.
37. Chaubey, I., C.T. Haan, S. Grunwald and J.M. Salisbury. 1999. Uncertainty in the model parameters due to spatial variability of rainfall. *Journal of Hydrology* 220(1-2):48-61.
38. Chaubey, I., D.R. Edwards, T.C. Daniel, P.A. Moore, Jr. and D.J. Nichols. 1995. Effectiveness of vegetative filter strips in controlling losses of surface-applied poultry litter constituents. *Transactions of the ASAE* 38

(6):1687-1692.

39. **Chaubey, I., D.R. Edwards, T.C. Daniel, P.A. Moore, Jr. and D.J. Nichols.** 1994. Effectiveness of vegetative filter strips in retaining surface-applied swine manure constituents. *Transactions of the ASAE* 37(3):845-850.

Book Chapters:

1. Yuan, Y., R.L. Bingner, and **I. Chaubey.** 2006. Phosphorus modeling in the Annualized Agricultural Nonpoint Source Pollution (AnnAGNPS) Model. *In Modeling Phosphorus in the Environment, D.E. Radcliffe, and M.L. Cabrera (ed.). CRC Press, Boca Raton, FL.* Pp. 215-240.
2. **Chaubey, I., K.L. White, C.H. Green, J.G. Arnold, and R. Srinivasan.** 2006. Phosphorus Modeling in Soil and Water Assessment Tool Model. *In Modeling Phosphorus in the Environment, D.E. Radcliffe, and M.L. Cabrera (ed.). CRC Press, Boca Raton, FL.* Pp. 163-188.
3. Matlock, M, B.E. Haggard, and **I. Chaubey.** 2004. *(Invited and peer reviewed book chapter).* Managing aquatic systems at watershed scale. D. Heldman (Editor). *Encyclopedia of Agricultural, Food, and Biological Engineering.*

Peer Reviewed Conference Proceedings:

1. **Chaubey, I., D. Sahoo, B.E. Haggard, K.L. White, and M. Matlock.** 2003. Assessment of nutrient retention in an agriculturally dominated stream. *Proc. AWRC Annual Conference.*
2. **Chaubey, I., A.S. Cotterl, T.A. Costello, M.A. Nelson, and T.S. Soerens.** 2002. Quantification of runoff and nutrient load prediction uncertainty due to GIS data resolution. *Proc. AWRC Conference on "Adequate Quality Water Supplies to Meet Our Growing Needs: Scientific, Regulatory, and Public Perspectives".*
3. White, K.L., **I. Chaubey,** and M.A. Nelson. 2002. Phosphorus SWAT modeling in the Arkansas Portion of the Illinois River drainage Area. *Proc. AWRC Conference on "Adequate Quality Water Supplies to Meet Our Growing Needs: Scientific, Regulatory, and Public Perspectives".*
4. Garg, V., **I. Chaubey,** and B.E. Haggard. 2002. Quantification of model output uncertainty due to watershed size. *Proc. AWRC Conference on "Adequate Quality Water Supplies to Meet Our Growing Needs: Scientific, Regulatory, and Public Perspectives".*
5. **Chaubey, I.** and K.P. Sudheer. 2005. A framework to stochastically evaluate watershed models. *Proc. 2nd Indian International Conference on Artificial Intelligence Applications. B. Prasad (ed.). pp 1095-1109. Invited.*
6. Sudheer, K.P., **I. Chaubey,** and V. Garg. 2005. Selection of optimal band combination for neural network based water quality retrieval from Landsat TM data. *Proc. 2nd Indian International Conference on Artificial Intelligence Applications. B. Prasad (ed.). pp 938-951.*
7. **Chaubey, I., P. Srivastava, L. Han, S.N. Addy and X. Yin.** 2000. Using GIS, remote sensing and water quality modeling to estimate animal waste pollution potential. P.K. Bollich (ed.). *In Proc. Agricultural Water Quality and Quantity: Issues for the 21st Century.* 136-143.
8. **Chaubey, I., D.R. Edwards, T.C. Daniel and P.A. Moore, Jr.** 1995. Buffer strips to improve quality of runoff from land areas treated with animal manures. Kenneth Steele (ed.). *In Proc. Animal Waste and Land Water Interface:* 363-370.

Invited Seminars:

National/International Conferences:

1. "Can agricultural production and ecosystem integrity coexist: results from agricultural watersheds in USA". **I. Chaubey**. 10th Inter-Regional Conference on Water Resources. New, Delhi, India. October 17- 20, 2007.
2. "A framework to stochastically evaluate watershed models". **I. Chaubey**. 2nd Indian International Conference on Artificial Intelligence Applications. Pune, India. December 20-22, 2005.
3. "Integrated ecosystem management: research advances, opportunities, and challenges in 21st Century". **I. Chaubey**. Indian Agricultural Research Institute, New Delhi. December 13, 2005.
4. "Identifying runoff source areas in a pasture dominated watershed". 2005. **I. Chaubey**. Annual International Conference of the Soil and Water Conservation Society. Rochester, NY. August 2, 2005.
5. "Eucha/Spavinaw Phosphorus Index". 2004. Daniel, T.C. and I. Chaubey. SERA-17 Annual International Conference. New Bern, NC. June 20-22
6. "Integrating physical, chemical, and biological response monitoring for watershed management: stream reach to watershed scale processes and lessons". **Chaubey, I., M.D. Matlock, and B.E. Haggard**. 2003 ASA-CSSA-SSSA Annual International Meeting. Denver, Colorado, November 2 – 6.
7. "Engaging stakeholders in watershed management process using a decision support system". **M.D. Matlock, I. Chaubey, B.E. Haggard, and T.A. Costello**. 2003 ASA-CSSA-SSSA Annual International Meeting. Denver, Colorado, November 2 – 6.
8. "How SWAT models phosphorus transport". **Chaubey, I.** 2002 SERA-IEG17 Annual Meeting. Fort Collins, CO. June 26, 27, 2002.

Regional:

1. Chaubey, I. 2007. Nutrient limitation, nutrient retention, and sediment nutrient interactions in an agriculturally dominated watershed. *Hydraulics Group Seminar Series, Purdue University*. March 5, 2007.
2. Chaubey, I. 2007. Optical modeling of remote sensing reflectance for water quality assessment. *Civil Engineering Department*. September 19, 2007.
3. Chaubey, I. 2007. Computing needs in watershed hydrology and modeling. *CRI Luncheon Discussion, Purdue University*. December 7, 2007.
4. "Mathematical modeling of watershed processes". **Chaubey, I.** Public Policy Symposium. Little Rock, AR. November 17, 2006.
5. "Modeling approaches to evaluate watershed and water quality processes". **Chaubey, I.** Upper White River Water Quality Conference. Branson, MO. April 6, 2006.
6. "Water quantity/quality issues in the L'Anguille River watershed. **Chaubey, I.** Arkansas Soil and Water Education Conference. Arkansas State University, Jonesboro. January 12, 2006.
7. "Development of a Decision Support System for Beaver Lake watershed". **Chaubey, I.** Northwest Arkansas Water Quality Symposium, Rogers, AR. March 22, 2005.
8. "Water resources, sustainable agriculture, and economic development in Arkansas: an Ecological Engineering solution". **Chaubey, I.** Rural Friendship Development Day conference. Fayetteville, AR. August 12, 2004.
9. "Beaver Lake watershed decision support system (BLWDSS)". **Chaubey I., S. Panda, K.L. White, M. Matlock, B. Haggard, and T.A. Costello**. 2004 Arkansas Water Resources Center Conference. Fayetteville, April 20-21, 2004.
10. "Uncertainty analyses in hydrologic/water quality models". **Chaubey, I.** Environmental Dynamics Colloquium,

University of Arkansas, Fayetteville. January 26, 2004.

11. "Assessment of Nutrient Dynamics in an Agriculturally Dominated Stream". **Chaubey, I.**, D. Sahoo, B.E. Haggard, K.L. White, and M. Matlock. *2003 Arkansas Water Resources Conference Center Conference on Quality Water Resources to Meet Our Competing Needs. Fayetteville, AR. April 22 – 23.*
12. "Demonstration of SWAT Model Using Beaver Lake Watershed". White, K.L., and **I. Chaubey**. *2003 Arkansas Water Resources Center Conference on Quality Water Resources to Meet Our Competing Needs. Fayetteville, AR. April 22 – 23.*
13. "Release of Phosphorus from Stream and Reservoir Sediment: Effect of Chemical Amendments". Haggard, B.E., S.A. Ekka, M. Matlock, P.A. Moore, jr., and **I. Chaubey**. *2003 Arkansas Water Resources Conference Center Conference on Quality Water Resources to Meet Our Competing Needs. Fayetteville, AR. April 22 – 23.*
14. "Total maximum daily loads". Phosphorus Management Workshop. *Division of Agriculture, University of Arkansas. October 15, 2002.*
15. "Quantification of runoff and nutrient load prediction uncertainty due to GIS data resolution". *2002 Annual Arkansas Water Resources Center Conference. April 23-24, 2002.*
16. SWAT Modeling of the Illinois River Drainage Area in Arkansas". K.L. White*, **I. Chaubey**, and M.A. Nelson. *2002 Annual Arkansas Water Resources Center Conference. April 23-24, 2002.*
17. "Stream Nutrient Retention in the Illinois River, Northwest Arkansas: Ecological Services and Water-Quality Criteria". B.E. Haggard, M. Matlock, and **I. Chaubey**. *2002 Annual Arkansas Water Resources Center Conference. April 23-24, 2002.*
18. "Nonpoint Source Pollution and Water Quality: Issues and Opportunities". *Allahabad Agricultural Institute (Deemed University), India. May 22, 2001.*
19. "Radar measurement of rainfall: application in hydrology/water quality modeling". *Center for Freshwater Studies, University of Alabama, Tuscaloosa, November 13, 1997.*
20. "Analysis of input errors in water quality modeling". *Cahaba/Warrior Student Chapter of AWRA, Tuscaloosa, February 26, 1998.*

Technical Papers/Proceedings presented at national/international conferences:

1. Maringanti, C., **I. Chaubey**, and B. Engel. 2008. Development of a multi-objective optimization tool for the selection and placement of BMPs for pesticide control. Paper No. 083536, Annual Conference of the ASABE, Providence, RI.
2. Leh, M.D., S.G. Bajwa, **I. Chaubey**, and J. Cothren. 2008. A remote sensing methodology of delineating stream channel morphology. Paper No. 083734, Annual Conference of the ASABE, Providence, RI.
3. Chiang, L., M. Gitau2, and **I. Chaubey**. 2008. Effectiveness of BMPs considering uncertainties in weather patterns in a pasture dominated watershed. Paper No. 083549, Annual Conference of the ASABE, Providence, RI.
4. Gitau2, M., L. Chiang1, **I. Chaubey**, and M. Sayeed. 2008. Computational approaches to evaluating BMPs considering stochasticity of weather. Paper No. 083577, Annual Conference of the ASABE, Providence, RI.
5. Cibir, R., K.P. Sudheer, and **I. Chaubey**. 2008. Global sensitivity analysis of distributed hydrologic models. Paper No. 084910, Annual Conference of the ASABE, Providence, RI.
6. Merriman, K.R., **I. Chaubey**, S. Ale, and L. Bowling. 2008. Quantification of nutrient dynamics in agricultural drainage ditches with BMPs Hoagland Ditch watershed in Indiana. Paper No. 083530, Annual Conference of the ASABE, Providence, RI.

7. Thomas, M., B. Engel, and **I. Chaubey**. 2008. Unintended consequences of biofuel production on water quality. Paper No. 084824, Annual Conference of the ASABE, Providence, RI.
8. **Chaubey, I.**, C. Maringanti, B.K. Schaffer, and J.H. Popp. 2008. Targeting vs. optimization: Critical evaluation of BMP implementation plan for watershed management. EWRI World Environmental and Water Resources Congress, Honolulu, HI. May 12-16, 2008.
9. **Chaubey, I.**, M. Gitau, L. Chiang, J.H. Popp, E. Gbur, M.A. Nelson, J. Pennington, G. Rodriguez, and B. Kurz. 2008. BMP effectiveness assessment for a pasture dominated watershed: results from two years of CEAP assessment. *Annual Conference of the USDA-CSREES. Sparks, NV.* February 4 – 7, 2008.
9. Gitau, M.W., L. Chiang, **I. Chaubey**, and M. Sayeed. 2008. Evaluating BMP scenario under CEAP: approaches to handling a multitude of runs and large datasets. *Annual Conference of the USDA-CSREES. Sparks, NV.* February 4 – 7, 2008.
11. **Chaubey, I.** and V. Garg. 2007. Estimation of inherent optical properties of lake water using inverse modeling. Paper No. 072100, ASABE, St. Joseph, MI.
12. Maringanti, C., **I. Chaubey**, J. Popp, and M. Gitau. 2007. Development of a multi-objective optimization tool for the selection and placement of BMPs for nonpoint source pollution control. Paper No. 072105, ASABE, St. Joseph, MI.
13. Gitau, M.W., R. Srivastava, and **I. Chaubey**. 2007. Watershed response modeling in Arkansas Priority Watersheds: experience with SWAT autocalibration. Paper No. 072171, ASABE, St. Joseph, MI.
14. Schaffer, B.K. and **I. Chaubey**. 2007. Development of a method to produce a targeted management plan using a physical process watershed model and economic optimization to meet TMDL requirements. Paper No. 072181, ASABE, St. Joseph, MI.
15. Migliaccio, K.L., **I. Chaubey**, and K.P. Sudheer. 2007. Conducting multi-site calibration for watershed models. Paper No. 072209, ASABE, St. Joseph, MI.
16. Gitau, M.W., **I. Chaubey**, R. Srivastava, and M.A. Nelson. 2007. Effectiveness of BMPs in reducing pollutant losses from a northwest Arkansas Agricultural watershed. Paper No. 072244, ASABE, St. Joseph, MI.
17. **Chaubey, I.**, B.K. Schaffer, E. Vories, P. Tacker, J.H. Popp, and G. Rodriguez. 2007. A decision support system framework for integrated agricultural watershed management. *Annual Conference of the USDA-CSREES. Savannah, GA.* January 28-31, 2007.
18. Gitau, M., **I. Chaubey**, and J.H. Popp. 2007. Effectiveness and optimization of BMPs in improving water quality from agriculturally dominated watersheds. *Annual Conference of the USDA-CSREES. Savannah, GA.* January 28-31, 2007.
19. **Chaubey, I.**, M.D. Leh, J.V. Brahana, and B.E. Haggard. 2006. Where does runoff come from? A monitoring and modeling approach. *Proc. An International Perspective on Environmental and Water Resources*, eds. U.P. Singh, B. Datta, B. Panigrahi, and M. Sharma. New Delhi, India. December 18-20, 2006.
20. Vories, E.D., P. Tacker, and **I. Chaubey**. 2006. On-farm studies of water use and water quality for rice production in the USA. *Proc. An International Perspective on Environmental and Water Resources*, eds. U.P. Singh, B. Datta, B. Panigrahi, and M. Sharma. New Delhi, India. December 18-20, 2006.
21. **Chaubey, I.** M. Gitau, D. Ennannay, M. Nelson, E. Gbur, J. Popp, and J. Pennington. 2006. Effectiveness and optimization of BMPs in improving water quality impacted by land application of animal manure. Abstract published in the proceedings of the Workshop "Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base". Kansas City, MO. October 11-13, 2006. 71 p.

22. Popp, J., G. Rodriguez, J. Pennington, E. Gbur, M. Steele, **I. Chaubey**, and M. Gitau. From Conflict to Cooperation: Enlisting stakeholders to address water quality disputes in an embattled watershed. Abstract published in the proceedings of the Workshop "Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base". Kansas City, MO. October 11-13, 2006. 68 p.
23. Merriman, K, M. Gitau, and **I. Chaubey**. 2006. A tool for estimating best management practice effectiveness in Arkansas. Abstract published in the proceedings of the Workshop "Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base". Kansas City, MO. October 11-13, 2006. 97 p.
24. Gitau, M. and **I. Chaubey**. 2006. Regionalization of SWAT model parameters in Arkansas Priority Watersheds. Abstract published in the proceedings of the Workshop "Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base". Kansas City, MO. October 11-13, 2006. 29 p.
25. **Chaubey, I.**, P. Tacker, E. Vories, and B.K. Schaffer. 2006. Development of a decision support system for integrated water quality management in Arkansas Delta. *World Congress of Computers and Electronics in Agriculture. Orlando, FL.*
26. Lakshmi, G., K.P. Sudheer, and **I. Chaubey**. 2006. Autocalibration of complex watershed models using simulation optimization framework. *ASABE Paper No. 06-2141. 2006 Annual International Conference of the ASABE. Portland, OR.*
27. **Chaubey, I.**, M. Leh, V. Brahana, and B.E. Haggard. 2006. Quantification of spatial distribution of runoff source areas in an agricultural watershed. *ASABE Paper No. 06-2126. 2006 Annual International Conference of the ASABE. Portland, OR.*
28. Shirmohammadi, A., **I. Chaubey**, R.D. Harmel, D.D. Bosch, R. Munoz-Carpena, C. Dharmasri, A. Sexton, M. Arabi, M.L. Wolfe, J. Frankenberger, C. Graff, and T.M. Sohrabi. 2006. Uncertainty in TMDL models. *ASABE Paper No. 06-XXXX. 2006 Annual International Conference of the ASABE. Portland, OR.*
29. **Chaubey, I.**, E. Gbur, B. Kurz, M. Nelson, J. Popp, M. Steele, and K. Teague. 2006. Effectiveness and optimization of BMPs in improving water quality from an agriculturally dominated watershed. *USDA-CSREES National Water Quality Conference. San Antonio, TX.*
30. **Chaubey, I.**, E. Vories, and P. Tacker. 2006. Integrated BMP assessment for improving water quality in a rice/soybean dominated watershed in the Arkansas Delta. *USDA-CSREES National Water Quality Conference. San Antonio, TX.*
31. Schaffer, B.K. and **I. Chaubey**. 2005. Development of a dynamic decision tool for an impaired watershed in the Arkansas Delta using Soil and Water Assessment Tool model. *Annual Conference of the American Water Resources Association, Seattle, WA.*
32. Srivastava, R. and **I. Chaubey**. 2005. Comparison of sediment prediction ability of the AnnAGNPS and the SWAT model for the West Fork of the White River. *Annual Conference of the American Water Resources Association, Seattle, WA.*
33. Leh, M.D., **I. Chaubey**, J. Murdock, and J.V. Brahana. 2005. Quantification of runoff-contributing areas in a pasture watershed – a field scale approach. *Annual Conference of the American Water Resources Association, Seattle, WA.*
34. **Chaubey, I.**, S. Panda, K.L. White, and M. Matlock. 2005. Decision Support System Development for Beaver Lake Watershed management – an environmental informatics approach. *ASAE paper No. 052199. 2005 Annual International Conference of ASAE, Tampa, Florida.*
35. Garg, V. and **I. Chaubey**. 2005. Optical modeling of hyperspectral remote sensing signals to assess water quality. *ASAE paper No. 052003. 2005 Annual International Conference of ASAE, Tampa, Florida.*
36. V. Vibhava, S.G. Bajwa, and **I. Chaubey**. 2005. Hydrologic modeling of L'Anguille watershed using Soil and

Water Assessment Tool model. *ASAE paper No. 052157. 2005 Annual International Conference of ASAE, Tampa, Florida.*

37. **Chaubey, I.,** and K.L. White. 2005. Influence of hydrologic response unit (HRU) distribution on SWAT model flow and sediment predictions. *Proc. Watershed Management to Meet Water Quality Standards and Emerging TMDL. ASAE, St. Joseph, MI.* pp. 283-289.
38. Brahana, J.V., T.E. Ting, M. Al-Qinna, J.F. Murdoch, R.K. Davis, J.L. Killingbeck, E. Szilbagyi, M. Doneny-Skubic, **I. Chaubey**, P.D. Hays, and G. Thoma. 2005. Quantification of hydrologic budget parameters for the vadose zone and epikarst in mantled karst. *USGS Karst Interest Group Proceedings, Rapid City, SD.* Pp. 144-152.
39. **Chaubey, I.,** M. Leh, K.L. White, J.F. Murdock, and V. Brahana. 2005. Development of a field scale methodology to identify runoff source areas in a pasture dominated watershed. *USDA-CSREES National Water Quality Conference. San Diego, CA.*
40. Vories, E., **I. Chaubey**, P. Tacker, and B.K. Schaffer. 2005. Development of an integrated water quality-water management program in the Arkansas Delta. *USDA-CSREES National Water Quality Conference. San Diego, CA.*
41. **Chaubey, I.,** D. Sahoo, B.E. Haggard, M. Matlock, T.A. Costello, and K.L. White. 2005. Integrated assessment of BMPs, nutrient transport, and water quality in an agriculturally dominated stream. *First International Conference on Environmental Science and Technology. American Academy of Sciences. New Orleans, LA.*
42. White, K.L., **I. Chaubey**, and B.E. Haggard. 2005. Coupling of CE QUAL-W2 and SWAT to simulate watershed reservoir management. *First International Conference on Environmental Science and Technology. American Academy of Sciences. New Orleans, LA.*
43. **Chaubey, I.** and K.L. White. 2004. Stochastic validation of SWAT model. *Presented at the AWRA Annual International Conference, Orlando, FL.*
44. Mutlu, E., **I. Chaubey**, M. Matlock, R. Morgan, B. Haggard, and D.E. Storm. 2004. NMDESS: A GIS based decision support system for nutrient management. *Presented at the AWRA Annual International Conference, Orlando, FL.*
45. White, K.L., **I. Chaubey**, B.E. Haggard, and M. Matlock. 2004. Evaluation of reservoir water quality response to watershed management using computer modeling. *Presented at the AWRA Annual International Conference, Orlando, FL.*
46. DeLaune, P.B., **I. Chaubey**, B.E. Haggard, M.J. Cochran, T.C. Daniel, and V. Garg. 2004. Development of the Eucha-Spavinaw phosphorus Index within a court settlement agreement. *Poster Presented at the Annual International Conference of the ASA/SSSA/CSA. Seattle, WA.*
47. Garg, V., and **I. Chaubey**. 2004. Remote sensing of chlorophyll and suspended sediment concentrations. *ASAE Paper No. 042016. 2004 Annual International Conference of ASAE, Ottawa, Canada.* 12 pp.
48. Panda, S.S., **I. Chaubey**, and V. Garg. 2004. Artificial neural networks application in lake water quality estimation using satellite imagery. *ASAE Paper No. 042073. 2004 Annual International Conference of ASAE, Ottawa, Canada.* 13 pp.
49. Sen, S., B.E. Haggard, **I. Chaubey**, K.R. Brye, M.D. Matlock, and T.A. Costello. 2004. Preliminary estimation of sediment phosphorus flux in Beaver Lake, Northwest Arkansas. *ASAE Paper No. 042269. 2004 Annual International Conference, Ottawa of ASAE, Canada.* 17 pp.
50. White, K.L., **I. Chaubey**, B.E. Haggard, and M.D. Matlock. 2004. Comparison of two methods for modeling monthly TP yield from a watershed. *ASAE Paper No. 042075. 2004 Annual International Conference of ASAE,*

Ottawa, Canada. 11 pp.

51. White, K.L., **I. Chaubey**, and B.E. Haggard. 2004. Linking watershed and reservoir models. *ASAE Paper No. 042075. 2004 Annual International Conference of ASAE, Ottawa, Canada.* 12 pp.
52. Garg, V., and **I. Chaubey**. 2004. A model for predicting spectral signature of suspended sediments. *Annual Conference of the American Ecological Engineering Society. Fayetteville, AR. June 7- 10.*
53. Panda, S.S., **I. Chaubey**, and M.D. Matlock. 2004. Using interactive GIS mapping in a watershed management DSS design. *Annual Conference of the American Ecological Engineering Society. Fayetteville, AR. June 7- 10.*
54. Mutlu, E., **I. Chaubey**, M.D. Matlock, B.E. Haggard, D.E. Storm, and M. White. 2004. NMDESS: A decision support system for nutrient management. *Annual Conference of the American Ecological Engineering Society. Fayetteville, AR. June 7- 10.*
55. White, K.L., **I. Chaubey**, B.E. Haggard, and M. Matlock. 2004. Comparison of two methods for modeling monthly TP yield from a watershed. *Annual Conference of the American Ecological Engineering Society. Fayetteville, AR. June 7- 10.*
56. Sen, S., B.E. Haggard, **I. Chaubey**, T.A. Costello, M. Matlock, and K. Brye. 2004. Quantification of internal phosphorus load in Beaver Lake, northwest Arkansas under aerobic and anaerobic conditions. *Annual Conference of the American Ecological Engineering Society. Fayetteville, AR. June 7- 10.*
57. Garg, V., and **I. Chaubey**. 2004. Hyperspectral remote sensing of chlorophyll-a for Beaver Reservoir, Arkansas. *ASPRS Annual Conference. Denver, CO. May 23 – 28.*
58. **Chaubey, I.**, D. Sahoo, M.D. Matlock, B.E. Haggard, and T.A. Costello. 2004. Quantifying stream nutrient retention in an agriculturally dominated stream. *Annual Conference of the Institute of Biological Engineering. Fayetteville, AR. January 9 – 11.*
59. Panda, S., **I. Chaubey**, M.D. Matlock, B.E. Haggard, and K.L. White. 2004. Development of GIS-based decision support system for Beaver lake watershed management. *2004 Spring Specialty Conference on GIS and Water Resources III. Nashville, TN. May 17 – 19.*
60. **Chaubey, I.**, T.A. Costello, K.L. White, and A.S. Cotter. 2003. Stochastic validation of SWAT model. *Proc. Total Maximum Daily Load: Environmental Regulations II. ASAE, St. Joseph, MI.* 168-176 pp.
61. White, K.L., **I. Chaubey**, and T.A. Costello. 2003. Stakeholder involvement in watershed management: lessons learned. *Proc. Total Maximum Daily Load: Environmental Regulations II. ASAE, St. Joseph, MI.* 46-50 pp.
62. Sahoo, D., **I. Chaubey**, B.E. Haggard, M.D. Matlock, and T.A. Costello. 2003. Stream nutrient dynamics and sediment nutrient interactions in an agricultural watershed. *ASAE Paper No. 03-2281. 2003 Annual International Conference of ASAE, Las Vegas, NV.* 6 pp.
63. Ekka, S.A., B.E. Haggard, M.D. Matlock, and **I. Chaubey**. 2003. Impact of point sources on nutrient interactions in Ozark streams. *ASAE Paper No. 03-2282. 2003 Annual International Conference of ASAE, Las Vegas, NV.* 8pp.
64. White, K.L., B.E. Haggard, and **I. Chaubey**. 2003. Changes in water quality at Buffalo National River, Arkansas, 1991 – 2001. *Poster Presented at the AWRA Spring Specialty Conference on Agricultural Hydrology and Water Quality. Kansas City, MO. May 12 – 14.* 5 pp.
65. Ekka, S.A., B.E. Haggard, M. Matlock, and **I. Chaubey**. 2003. Impact of wastewater treatment plants in streams of Illinois River Basin. *Poster Presented at the AWRA Spring Specialty Conference on Agricultural Hydrology and Water Quality. Kansas City, MO. May 12 – 14.* 5 pp.

66. Sahoo, D., **I. Chaubey**, B.E. Haggard, and M. Matlock. 2003. Stream nutrient retention and limitation in Moores Creek, Northwest Arkansas. *Poster Presented at the AWRA Spring Specialty Conference on Agricultural Hydrology and Water Quality*. Kansas City, MO. May 12 – 14. 4 pp.
67. Garg, V., S.G. Bajwa, and **I. Chaubey**. 2003. Effect of suspended sediment distribution on spectral reflectance. *Poster Presented at the AWRA Spring Specialty Conference on Agricultural Hydrology and Water Quality*. Kansas City, MO. May 12 – 14. 4 pp.
68. Sahoo, D., **I. Chaubey**, M. Matlock, and B.E. Haggard. 2003. Sediment, nutrient interaction in an agricultural watershed in Northwest Arkansas. *Poster presented at the 2003 Annual International Meeting of the Institute of Biological Engineering*. Athens, GA. January 17 – 19.
69. Garg, V., and **I. Chaubey**. 2002. Watershed curve number estimates based on rainfall". In Welty, C. (ed.), *AWRA's 2002 Annual Water Resources Conference Proc. American Water Resources Association, Middleburg, VA, TPS-02-4*: 328.
70. **Chaubey**, I., K.L. White, and M.A. Nelson. 2002. Implementation of a mass balance and modeling approach to assess watershed-scale phosphorus source and transport. In Welty, C. (ed.), *AWRA's 2002 Annual Water Resources Conference Proc. American Water Resources Association, Middleburg, VA, TPS-02-4*: 328 p.
71. Cotter, A.S., **I. Chaubey**, T.A. Costello, M.A. Nelson, and T. Soerens. 2002. Effect of spatial data resolution on SWAT output uncertainty. *ASAE Paper No. 02-2012. 2002 Annual International Conference, Chicago, IL*. 14 pp.
72. Garg, V., **I. Chaubey**, and B.E. Haggard. 2002. Quantification of model output uncertainty due to watershed size. *ASAE Paper No. 022227. 2002 Annual International Conference of ASAE, Chicago, IL*. 16 pp.
73. Cotter, A.S., **I. Chaubey**, T.A. Costello, M.A. Nelson, and T. Soerens. 2002. TMDL data requirements for agricultural watersheds. *Proc. Total Maximum Daily Load (TMDL): Environmental Regulations Conference*. ASAE, St. Joseph, MI. 408-415 pp.
74. **Chaubey**, I., K.A. Warner, G.M. Ward, and E.E. Roden. 2001. Statistical analysis of land use effect on in-stream nutrient concentrations. *Proc. Mini-Symposium on Statistical Methods in Hydrology*. P.K. Haan and R.D. Harmel (Eds.). *ASAE, St. Joseph, MI*. 33-38 pp.
75. **Chaubey**, I., and J.M. Beck. 2001. Long-term nutrient transport assessment of animal manure from agricultural watersheds. In John J. Warwick (ed.), *AWRA Annual Spring Specialty Conference Proceedings. "Water Quality Monitoring and Modeling."* American Water Resources Association, Middleburg, VA. TPS-01-1: 211-216.
76. **Chaubey**, I., L. Han, and S.N. Addy. 2000. Nonpoint pollution assessment of poultry litter application using GIS, remote sensing and water quality modeling. *ASAE Paper No. 002208. 2000 Annual International Conference of ASAE, Milwaukee, WI*. 18 pp.
77. **Chaubey**, I., C.T. Haan, J.M. Salisbury, and S. Grunwald. 1998. Quantifying the impact of rainfall spatial variability on hydrology/water quality model outputs. *Annual Water Resources Conference of the American Water Resources Association. Technical Publication Series TPS-98-3*: 109.
78. **Chaubey**, I., and G.M. Ward. 1998. Hydrologic budget analysis of a small lotic wetland in Alabama. *Annual Water Resources Conference of the American Water Resources Association. Technical Publication Series TPS-98-3*: 9.
79. Benke, A.C., **I. Chaubey**, G.M. Ward, and E.L. Dunn. 1998. Flood pulse dynamics of a blackwater coastal plain river swamp in the Southeastern United States. *XXVII Congress of International Association of Theoretical and Applied Limnology, Dublin, Ireland. August 8-14*.
80. Bosch, D.D., R.L. Bingner, F.D. Theurer, G. Felton, and **I. Chaubey**. 1998. Evaluation of the AnnAGNPS

water quality model. ASAE Paper No. 982195. St. Joseph, MI. 16 pp.

81. **Chaubey, I.**, C.T. Haan, S. Grunwald, and J.M. Salisbury. 1997. Effect of spatial variability of rainfall on modeling hydrologic/water quality processes. *ASAE Paper No. 972099. 1997 Annual International Conference of ASAE, Minneapolis, MN.* 161-164 pp.
82. Edwards, D.R., **I. Chaubey**, T.C. Daniel, and P.A. Moore, Jr. 1995. Modeling vegetative filter Strip performance for runoff from plots receiving poultry litter. *In Proc. The International Symposium on Water Quality Modeling, Orlando, FL. April 2-5.* 78-86 p.
83. Edwards, D.R., **I. Chaubey**, T.C. Daniel, and P.A. Moore Jr. 1994. Performance of vegetated filter strips in reducing pollution by land-application of animal manures. *In Effects of Human-Induced Changes on Hydrologic Systems. Proc. AWRC 1994 Annual Summer Symposium. Jackson Hole, WY.* 1162 p.
84. **Chaubey, I.**, D.R. Edwards, T.C. Daniel, and P.A. Moore, Jr. 1994. Modeling nutrient transport in vegetative filter strips. *ASAE Paper No. 942149. 1994 Annual International Conference of ASAE, Kansas City, MO.* 28 pp.
85. Edwards D.R., **I. Chaubey**, T.C. Daniel, and P.A. Moore, Jr. 1994. Effectiveness of vegetative filter strips in reducing losses of land-applied animal manure constituents. *In Proc. XII World Conference on Agricultural Engineering, Milano, Italy, Aug. 29-Sept.1.* 409-415 pp.
86. **Chaubey, I.**, D.R. Edwards, T.C. Daniel, and D.J. Nichols. 1993. Effectiveness of vegetative filter strips in controlling losses of surface-applied poultry litter constituents. *ASAE Paper No. 932011. 1993 Annual International Conference of ASAE, Spokane, WA.* 17 pp.

Paper Presented at Regional, State, or Local Conference :

1. Thomas, M., B. Engel, and **I. Chaubey**. 2007. Unintended consequences of biofuel production on water quality. Poster presented at the Annual Conference of the Center for the Environment (C4E), Purdue University, IN. November 9, 2007.
2. Migliaccio, K.W., B.E. Haggard, **I. Chaubey**, and M.D. Matlock. 2006. Seasonality, land use, and scale influences on stream water quality. *Paper presented at the Florida section of ASABE conference.* Jupiter, FL. June 1-3, 2006.
3. Merriman, K, M. Gitau, and **I. Chaubey**. 2006. A tool for estimating best management practice effects in Arkansas. *Poster presented at the Annual Conference of the Arkansas Water Resources Association.* Fayetteville, AR. April 18, 2006.
4. Leh, M., **I. Chaubey**, J.B. Brahana, J. Murdock, and B.E. Haggard. 2006. Field investigations of rainfall-runoff processes in a Karst watershed. *Poster presented at the Annual Conference of the Arkansas Water Resources Association.* Fayetteville, AR. April 18, 2006.
5. Mutlu, E., **I. Chaubey**, H. Hexmoore, and S. Bajwa. 2006. Comparison of artificial neural network models for hydrologic prediction in agricultural watersheds. *Poster presented at the Annual Conference of the Arkansas Water Resources Association.* Fayetteville, AR. April 18, 2006.
6. Leh, M. **I. Chaubey**, J.V. Brahana, and J. Murdoch. Quantification of critical runoff contributing areas in a pasture watershed. *Poster presented at the Annual Conference of the Arkansas Water Resources Association.* Fayetteville, AR. April 19, 2005.
7. Garg, V. and **I. Chaubey**. Diffuse light effect on the accuracy of remote sensing model of water quality assessment. *Poster presented at the Annual Conference of the Arkansas Water Resources Association.* Fayetteville, AR. April 19, 2005.
8. Schaffer, B.K., **I. Chaubey**, and P. Tacker. Development of an integrated water quality – water management program in Arkansas Delta. *Poster presented at the Annual Conference of the Arkansas Water Resources Association.* Fayetteville, AR. April 19, 2005.
9. Mutlu, E.O., **I. Chaubey**, and H. Hexmoor. Development of a neural net model to predict total phosphorus concentration in Eucha watershed. *Poster presented at the Annual Conference of the Arkansas Water Resources Association.* Fayetteville, AR. April 19, 2005.
10. Cochran, M., T. Daniel, and **I. Chaubey**. Update on Eucha-Spavinaw Phosphorus Index Development. Seminar presented at the Quad State Poultry Dialogue Symposium. Fayetteville, AR. May 6, 2004.

11. **Chaubey, I.**, and V. Garg. Water quality modeling using hyperspectral remote sensing. *Twelfth Annual Arkansas Space Grant Symposium. Lyon College, Batesville, AR. April 30, 2004.*
12. White, K.L., B.E. Haggard, and **I. Chaubey**. Water quality during base flow and surface runoff conditions at the Buffalo National River near St. Joe, Arkansas from 1991 – 2001. *Poster presented at the 2003 Arkansas Water Resources Conference Center Conference on "Quality Water Resources to Meet Our Competing Needs". Fayetteville, AR. April 22 – 23.*
13. Sahoo, D., **I. Chaubey**, B.E. Haggard, and M. Matlock. Nutrient retention and limitation in an agriculturally dominated stream in Northwest Arkansas. *Poster presented in the 2003 Arkansas Water Resources Conference Center Conference on "Quality Water Resources to Meet Our Competing Needs". Fayetteville, AR. April 22 – 23.*
14. Ekka, S.A., B.E. Haggard, M.D. Matlock, and **I. Chaubey**. Impact of wastewater treatment plants on sediment phosphorus concentration. *Poster presented in the 2003 Arkansas Water Resources Conference Center Conference on "Quality Water Resources to Meet Our Competing Needs". Fayetteville, AR. April 22 – 23.*
15. Griffis, C.L., and **I. Chaubey**. Teaching online: an innovative pedagogical tool. *Southern Region Teaching Symposium. Fayetteville, AR. Oct 6 – 8, 2002.*
16. Garg, V., and **I. Chaubey**. Effect of Calibrating Watershed Characteristics on Uncertainty of Runoff Volume Modeling. *2002 AWRC Conference on "Adequate Quality Water Supplies to Meet Our Growing Needs: Scientific, Regulatory, and Public Perspectives". Fayetteville, AR.*
17. Han, L., **I. Chaubey**, and S. Addy. Modeling nonpoint source pollution from poultry litter using GIS. *First Alabama GIS Symposium, Tuscaloosa. June 22-23, 1999.*

Other Presentations/publications :

1. Gitau, M., L. Chiang, **I. Chaubey**, and S. Mohammed. Evaluating best management practice impacts on water quality considering stochasticity of weather. *Poster Presented at the CRI, High Performance Computing Seminar, Purdue University. October 25, 2007.*
2. **Chaubey, I.** 2006. Development of an integrated water quality – water management program in the L'Angeuille River watershed. *Faculty Impact Statements 2005. Arkansas Agricultural Experiment Station Research Series 539. pp. 55.*
3. **Chaubey, I.** 2006. Identifying runoff contributing areas for water quality management. . *Faculty Impact Statements 2005. Arkansas Agricultural Experiment Station Research Series 539. pp. 55.*
4. **Chaubey, I.** Beaver Lake watershed decision support system. *The Great Plains Network Consortium Meeting, Lawrence, KS. February 25, 2005.*
5. **Chaubey, I.**, K.L. White, and C. Cooper. Using SWAT models in watershed response assessment. *Workshop conducted at the Arkansas Soil and Water Conservation Commission. July 15, and August 26, 2004.*
6. Schaffer, B., **I. Chaubey**, M. Matlock, J. Popp, P. Tacker, and E. Vories. Integrated water quality – water conservation program in the Arkansas Delta. *Poster presented at the L'Angeuille River Watershed Awareness Day. Forest City, AR. July 29, 2004.*
7. Ludwig, A., Marty Matlock, B. Haggard, R. Morgan, **I. Chaubey**, and Monty Matlock. 2004. The influence of riparian forest canopy on stream primary productivity. *AWRA Summer Specialty Conference on "Riparian Ecosystems and Buffers: Multi-scale Structure, Function, and Management". Olympic Valley, CA. June 28-30.*
8. **Chaubey, I.** 2004. Decision Support System research activities within the Ecological Engineering program. *Presented at the Public Policy Colloquium, University of Arkansas, Fayetteville. January 21.*
9. Garg, V., and **I. Chaubey**. 2003. Effect of suspended sediment distribution on spectral reflectance. *Abstract published in the Proc. Total Maximum Daily Load: Environmental Regulations II. ASAE, St. Joseph, MI. 136 p.*
10. **Chaubey, I.**, M.D. Matlock, and B.E. Haggard. 2003. Managing aquatic ecosystem processes at the watershed level: an ecological engineering approach. *Resource (May 2003). 15 p.*
11. Ekka, S., B.E. Haggard, M. Matlock, and **I. Chaubey**. 2003. Phosphorus sources in the Illinois River Basin: effect of chemical amendments on sediment phosphorus interactions. *Poster Presented at the Annual Conference of the North American Benthological Society. Athens, GA. May 27 – 31.*
12. **Chaubey, I.**, and T.A. Costello. 2002. Spatial data requirements for TMDL development use water quality models. *Faculty Impact Statements. University of Arkansas Agricultural Experiment Station. 46 p.*
13. **Chaubey, I.** 2002. New graduate class prepares students to tackle environmental problems. *Faculty Impact Statements. University of Arkansas Agricultural Experiment Station. 61 p.*
14. White, K.L., and **I. Chaubey**. Moores Creek and Lincoln Lake Watershed Project. *The Tri-County Conservation District Newsletter, March/April 2003.*
15. Garg, V., and **I. Chaubey**. Secchi Disk depth measurement using optical sensors. *Poster Presented in the*

- Phosphorus Management Workshop. Division of Agriculture, University of Arkansas. October 15, 2002.*
16. **Chaubey, I. M.** Matlock, T.A. Costello, B. Haggard, and K.L. White. Development of a decision support system and data needs for the Beaver Lake watershed. *Poster Presented in the Phosphorus Management Workshop. Division of Agriculture, University of Arkansas. October 15, 2002.*
 17. **Chaubey, I.,** T.A. Costello, K.L. White, and D. Sahoo. Optimizing BMPs, water quality and sustained agriculture in the Lincoln Lake watershed. *Poster Presented in the Phosphorus Management Workshop. Division of Agriculture, University of Arkansas. October 15, 2002.*
 18. Maxwell, C.V., K. VanDevender, **I. Chaubey**, P.A. Moore, M.E. Davis, K.L. White, and S. Sen. Swine waste demonstration and training project. *Poster Presented at the Phosphorus Management Workshop. Division of Agriculture, University of Arkansas. October 15, 2002.*
 19. **Chaubey, I.** A simplified methodology to identify "hot spots" for nonpoint source pollution. *Faculty Impact Statements 2000. University of Arkansas Agricultural Experiment Station. 45 p.*
 20. **Chaubey, I.,** and C. Griffis. Web-based class teaches students micro-computer applications in agriculture and human environmental sciences. *Faculty Impact Statements 2000. University of Arkansas Agricultural Experiment Station. 54 p.*

Reports Written on Research Results:

1. **Chaubey, I.** J.H. Popp, P. Tacker, and E. Vories. 2007. Development of an integrated water quality-water management program in the Arkansas Delta. Final report submitted to the USDA-CSREES.
2. **Chaubey, I.,** M. Matlock, B. Haggard, P. Tacker, and E. Vories. 2007. Sustainable agriculture and water resources in Arkansas: A bioenvironmental engineering solution. Final report submitted to the EPA Region 6.
3. **Chaubey, I.,** B.E. Haggard and P. Srivastava. 2007. Differentiating runoff contributing areas for effective water quality management. Abstract published in the proceedings of the 2007 Water and Watersheds PD Meeting. National Water Conference, Savannah, GA. January 29, 2007.
4. **Chaubey, I.,** M. Matlock, and V. Garg. 2005. SWAT modeling in the Arkansas Portion of the Illinois River Watershed. *Final Report Submitted to Arkansas Soil and Water Conservation Commission. Project No. 02-1400.*
5. **Chaubey, I.,** M. Matlock, T.A. Costello, B.E. Haggard, V. Garg, S. Sen, K.L. White, and R.K. Davis. 2005. Development of a Decision Support System and Data Needs for the Beaver Lake watershed. *Final Report Submitted to Arkansas Soil and Water Conservation Commission. Project No. 02-1200.*
6. **Chaubey, I.,** T.A. Costello, K.L. White, M.A. Nelson, and M. Steele. 2005. Optimizing BMPs, water quality, and sustained agriculture in the Lincoln Lake watershed. *Final Report Submitted to Arkansas Soil and Water Conservation Commission. Project No. 01-1100.*
7. **Chaubey, I.,** M. Matlock, T. Costello, C. Cooper, and K. White. 2004. GIS database development and watershed modeling in Arkansas priority watersheds. *Final Report Submitted to Arkansas Soil and Water Conservation Commission. Project No. 04-120.*
8. Maxwell, C.V., K. W. VanDevender, K.P. Coffey, P.A. Moore, **I. Chaubey**, and D.R. Smith. 2003. Swine Waste Demonstration Project. *Final Report Submitted to Arkansas Soil and Water Conservation Commission. Contract No. 0017837.*
9. **Chaubey I.,** L. Han, and S.N. Addy. 2000. Environmental and economic impact assessment of animal waste pollution potential using Geographic Information System. *School of Mining and Energy Development, University of Alabama, Tuscaloosa, AL.*
10. **Chaubey, I.,** D.R. Edwards, and T.C. Daniel. 1994. Assessment of effectiveness of buffer zones in removing impurities in runoff from areas treated with poultry litter. *Publication No. 166. Technical Completion Report Research Project G-1549-03. Arkansas Water Resources Center, University of Arkansas.*
11. Quarterly progress reports and annual reports submitted to EPA on various funded projects.
12. Annual Progress reports (1999, 2000, 2001) submitted to NSF for project titled "Social impact assessment of human exposure to mercury related to land use and physicochemical settings in the Alabama-Mobile River Basin".



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